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REMARKS

The application has been reviewed in light of the Office Action dated October 31, 2006. Claims 1-77 are pending. By this Amendment, claims 1, 12, 23, 34, 44 and 54 have been amended to clarify the claimed subject matter. The Office Action indicates that claims 67-75 are allowed. Accordingly, claims 1-66 and 76-77 are presented for reconsideration, with claims 1, 12, 23, 34, 44 and 54 being in independent form.

Claims 1-3, 5-8, 11-14, 16-19, 22-25, 27-30, 33-36, 38-41, 43-46, 48-51, 53-56, 63, 76 and 77 were rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over U.S. Patent No. 6,684,283 to Harris et al. in view of U.S. Patent No. 6,061,746 to Stanley et al. Claims 4, 15, 26, 37 47 and 57 were rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over Harris in view of Stanley and further in view of U.S. Patent No. 6,718,274 to Huang et al. and U.S. Patent No. 4,191,942 to Long.

Applicant has carefully considered the Examiner's comments and the cited art, and respectfully submits that independent claims 1, 12, 23, 34, 44 and 54 are patentable over the cited art, for at least the following reasons..

This application relates to techniques for enabling use of different types of PC cards with a host computer (such as a notebook computer or personal computer). Many current mobile terminal devices and computers include a PC card control apparatus which is compliant with the PCMCIA (Personal Computer Memory Card International Association) standard. However, more recently, such devices have been downsized (to render the device more portable and less cumbersome), and new PC cards employing an efficient bus interface such as USB2.0 and PCIexpress are now popularly used with the devices. Many conventional PC card control apparatus configured for

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connecting a PC card compliant with the PCMCIA standard and for connecting other PC cards (such as compliant with USB2.0 and/or PCIexpress) include a converter which converts data format to one suitable for use with the PCI bus, when the connected card is a non-PCMCIA card.

Applicant devised an improved PC card control apparatus to which a PC card compliant with specific card standards (such as PCMCIA) as well as a PC card compliant with a different card standard can connect. Such a PC card control apparatus includes a PC card connector, a card detector and an interconnection switching circuit. The PC card connector provides connections for connecting one of (a) a first PC card compliant with specific card standards and (b) with or without a card-adapting card a second PC card compliant with a different card standard. The specific card standards require a first data format and the different card standard requires a second data format different from the first data format. The card detector detects connection of the card-adapting card or second PC card to the PC card control apparatus and subsequently outputs a detection signal. The interconnection switching circuit switches the connections of the PC card connector to connect the PC card connector to a bus interface dedicated to the second card upon receiving the detection signal from the card detector. The bus interface dedicated to the second PC card operates with the second data format of the different card standard without converting to the first data format of the specific card standards. Each of independent claims 1, 12, 23, 34, 44 and 54, as amended, addresses these features, as well as additional features.

Harris, as understood by Applicant, proposes an approach for interfacing a CardBay card to a host system which includes a system bus and a CardBay controller running CardBus and 16-bit CSS (Card and Select Services) software. The CardBay (or CardBus or 16-bit) card is received through a PC card interface of the host system. In place of the CardBay (or CardBus or 16-bit) card, an adapter

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bearing a media card may be inserted in the PC card slot.

As acknowledged in the Office Action, Harris fails to teach or suggest an interconnection switching circuit configured to switch the connections of the PC card connector to connect the PC card connector to a bus interface dedicated to the second card upon receiving the detection signal from the card detector.

In addition, Harris does not teach or suggest a PC card control apparatus wherein the specific card standards require a first data format and the different card standard requires a second data format different from the first data format, and the bus interface dedicated to the second PC card operates with the second data format of the different card standard without converting to the first data format of the specific card standards, as provided by the subject matter of claim 1 as amended.

Stanley, as understood by Applicant, proposes a system for supporting a Device Bay Controller (DBC) which facilitates adding and upgrading peripheral devices to the host computer through device bays 0-2, connected via a USB bus or 1394 bus to the computer. The DBC monitors and controls devices connected to the device bays and maintains an association of the USB ports and 1394 ports on the one hand with device bay sockets on the other hand.

Fig. 3 of Stanley shows a system wherein each of device bays 0-2 is connected to a USB root controller and a 1394 link controller through respective interfaces, and DBC 105 communicates with the interfaces to monitor and control the communication between the devices connected to the devices bays on the one hand and the USB root controller and a 1394 link controller on the other hand.

However, contrary to the contention in the Office Action, the DBC 105 in Stanley does not operate as a switch to switch the connections of the bays 0-2 to the host.

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Moreover, Stanley, like Harris, does not teach or suggest a PC card control apparatus wherein the specific card standards require a first data format and the different card standard requires a second data format different from the first data format, and the bus interface dedicated to the second PC card operates with the second data format of the different card standard without converting to the first data format of the specific card standards. In each instance in Stanley, the data is converted into a format suitable for a PCI bus, as provided by the subject matter of claim 1 as amended.

Further, Stanley does not involve a PC card control apparatus, and therefore one skilled in the art would not have been motivated to look to Stanley for suggestions for modifying the device of Harris.

Huang and Long were only cited against dependent claims in this application, and do not cure the deficiencies of Harris and Stanley.

Huang, as understood by Applicant, proposes a controller for integration in a host system to detect and control operation of a plurality of expansion cards. Huang was cited in the Office Action as purportedly proposing use of a MUX to select between a CardBus or a PCMCIA bus interface.

Long, as understood by Applicant, proposes a converter circuit which functions as a single slope A/D converter. Long was cited in the Office Action as purportedly proposing that a multiplexer can be replaced by an analog switch.

Applicant does not find teaching or suggestion in the cited art, however, of a PC card control apparatus includes a PC card connector, a card detector and an interconnection switching circuit, wherein the PC card connector provides connections for connecting one of (a) a first PC card compliant with specific card standards and (b) with or without a card-adapting card a second PC card compliant with a different card standard, the specific card standards require a first data format and

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the different card standard requires a second data format different from the first data format, the card detector detects connection of the card-adapting card or second PC card to the PC card control apparatus and subsequently outputs a detection signal, the interconnection switching circuit switches the connections of the PC card connector to connect the PC card connector to a bus interface dedicated to the second card upon receiving the detection signal from the card detector, and the bus interface dedicated to the second PC card operates with the second data format of the different card standard without converting to the first data format of the specific card standards, as provided by the subject matter of claim 1 as amended.

Independent claims 12, 23, 34, 44 and 54 are patentably distinct from the cited art for at least similar reasons.

Accordingly, for at least the above-stated reasons, Applicant respectfully submits that independent claims 1, 12, 23, 34, 44 and 54, and the claims depending therefrom, are patentable over the cited art.

The Office Action indicates that claims 64-75 are allowed.

Applicant appreciates the Examiner's statement of reasons for allowance in the Office Action and submits that the allowed claims recite subject matter which further supports patentability for reasons in addition to those identified in the Examiner's statement of reasons for allowance in the Office Action.

The Office Action indicates that claims 9, 10, 20, 21, 31, 32, 42, 52 and 62 are objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, since independent claims 1, 12, 23, 34, 44 and 54 are submitted to be patentable over the cited art, no

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changes to the form of claims 9, 10, 20, 21, 31, 32, 42, 52 and 62 are believed to be necessary.

In view of the remarks hereinabove, Applicant submits that the application is now in condition for allowance, and earnestly solicits the allowance of the application.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Patent Office is hereby authorized to charge any fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Respectfully submitted,



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